

SEQUENCE LISTING

<110> Sheppard, Paul O.
Jelinek, Laura J.

<120> Mammalian Neuro-Growth Factor Like
Protein

<130> 97-28C1

<150> 09/099,295

<151> 1998-06-18

<150> 60/050,143

<151> 1997-06-18

<160> 24

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 1297

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (69)...(887)

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cacaggcc atg agg ggc tct cag gag gtg ctg ctg atg tgg ctt ctg gtg 110
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Leu Ala Val Gly Gly Thr Glu His Ala Tyr Arg Pro Gly Arg Arg Val
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tgt gct gtc cgg gct cac ggg gat cct gtc tcc gag tcg ttc gtg cag	206
Cys Ala Val Arg Ala His Gly Asp Pro Val Ser Glu Ser Phe Val Gln	
35 40 45	
cgt gtg tac cag ccc ttc ctc acc acc tgc gac ggg cac cgg gcc tgc	254
Arg Val Tyr Gln Pro Phe Leu Thr Thr Cys Asp Gly His Arg Ala Cys	
50 55 60	
agc acc tac cga acc atc tat agg acc gcc tac cgc cgc agc cct ggg	302
Ser Thr Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly	
65 70 75	
ctg gcc cct gcc agg cct cgc tac gcg tgc tgc ccc ggc tgg aag agg	350
Leu Ala Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg	
80 85 90	
acc agc ggg ctt cct ggg gcc tgt gga gca gca ata tgc cag ccg cca	398
Thr Ser Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro	
95 100 105 110	
tgc cgg aac gga ggg agc tgt gtc cag cct ggc cgc tgc cgc tgc cct	446
Cys Arg Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro	
115 120 125	
gca gga tgg cgg ggt gac act tgc cag tca gat gtg gat gaa tgc agt	494
Ala Gly Trp Arg Gly Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser	
130 135 140	
gct agg agg ggc ggc tgt ccc cag cgc tgc gtc aac acc gcc ggc agt	542
Ala Arg Arg Gly Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser	
145 150 155	
tac tgg tgc cag tgt tgg gag ggg cac agc ctg tct gca gac ggt aca	590
Tyr Trp Cys Gln Cys Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr	
160 165 170	
ctc tgt gtg ccc aag gga ggg ccc ccc agg gtg gcc ccc aac ccg aca	638
Leu Cys Val Pro Lys Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr	
175 180 185 190	

<400> 2
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Val Gly Gly Thr Glu His Ala Tyr Arg Pro Gly Arg Arg Val Cys Ala
 20 25 30
 Val Arg Ala His Gly Asp Pro Val Ser Glu Ser Phe Val Gln Arg Val
 35 40 45
 Tyr Gln Pro Phe Leu Thr Thr Cys Asp Gly His Arg Ala Cys Ser Thr
 50 55 60
 Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly Leu Ala
 65 70 75 80
 Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser
 85 90 95
 Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg
 100 105 110
 Asn Gly Gly Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala Gly
 115 120 125
 Trp Arg Gly Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg
 130 135 140
 Arg Gly Gly Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp
 145 150 155 160
 Cys Gln Cys Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys
 165 170 175
 Val Pro Lys Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Val
 180 185 190
 Asp Ser Ala Met Lys Glu Glu Val Gln Arg Leu Gln Ser Arg Val Asp
 195 200 205
 Leu Leu Glu Glu Lys Leu Gln Leu Val Leu Ala Pro Leu His Ser Leu
 210 215 220
 Ala Ser Gln Ala Leu Glu His Gly Leu Pro Asp Pro Gly Ser Leu Leu
 225 230 235 240
 Val His Ser Phe Gln Gln Leu Gly Arg Ile Asp Ser Leu Ser Glu Gln
 245 250 255
 Ile Ser Phe Leu Glu Glu Gln Leu Gly Ser Cys Ser Cys Lys Lys Asp
 260 265 270
 Ser

<210> 3

<211> 254

<212> PRT

<213> Homo sapiens

<400> 3

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 1 5 10 15

His Gly Asp Pro Val Ser Glu Ser Phe Val Gln Arg Val Tyr Gln Pro
 20 25 30
 Phe Leu Thr Thr Cys Asp Gly His Arg Ala Cys Ser Thr Tyr Arg Thr
 35 40 45
 Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly Leu Ala Pro Ala Arg
 50 55 60
 Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser Gly Leu Pro
 65 70 75 80
 Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly
 85 90 95
 Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala Gly Trp Arg Gly
 100 105 110
 Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg Arg Gly Gly
 115 120 125
 Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp Cys Gln Cys
 130 135 140
 Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys Val Pro Lys
 145 150 155 160
 Gly Gly Pro Pro Arg Val Ala Pro Asn Pro Thr Gly Val Asp Ser Ala
 165 170 175
 Met Lys Glu Glu Val Gln Arg Leu Gln Ser Arg Val Asp Leu Leu Glu
 180 185 190
 Glu Lys Leu Gln Leu Val Leu Ala Pro Leu His Ser Leu Ala Ser Gln
 195 200 205
 Ala Leu Glu His Gly Leu Pro Asp Pro Gly Ser Leu Leu Val His Ser
 210 215 220
 Phe Gln Gln Leu Gly Arg Ile Asp Ser Leu Ser Glu Gln Ile Ser Phe
 225 230 235 240
 Leu Glu Glu Gln Leu Gly Ser Cys Ser Cys Lys Lys Asp Ser
 245 250

<210> 4

<211> 284

<212> DNA

<213> Homo sapiens

<400> 4

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 cagtggggcg cacagagcac gcctaccggc ccggccgtag ggtgtgtgct gtccgggctc 180

acgggggaccc tgtctccgag tcgttcgtgc agcgtgtgta ccagcccttc ctcaccacct 240
gcgacgggca ccgggcctgc agcacctacc gaaccatcta tagg 284

<210> 5

<211> 40

<212> DNA

<213> Homo sapiens

<400> 5

tgcggcggtg ggcggctcta tagatggttc ggtagggtgc 40

<210> 6

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<212> DNA

<213> Homo sapiens

<400> 6

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<211> 18

<212> DNA

<213> Homo sapiens

<400> 7

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<210> 8

<211> 708

<212> PRT

<213> Homo sapiens

<400> 8

Thr His Arg Gly Leu His Ile Ser Ala Leu Ala Thr Tyr Arg Ala Arg
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Gly Pro Arg Gly Leu Tyr Ala Arg Gly Ala Arg Gly Val Ala Leu Cys
20 25 30

Tyr Ser Ala Leu Ala Val Ala Leu Ala Arg Gly Ala Leu Ala His Ile
 35 40 45
 Ser Gly Leu Tyr Ala Ser Pro Pro Arg Val Ala Leu Ser Glu Arg Gly
 50 55 60
 Leu Ser Glu Arg Pro His Glu Val Ala Leu Gly Leu Asn Ala Arg Gly
 65 70 75 80
 Val Ala Leu Thr Tyr Arg Gly Leu Asn Pro Arg Pro His Glu Leu Glu
 85 90 95
 Thr His Arg Thr His Arg Cys Tyr Ser Ala Ser Pro Gly Leu Tyr His
 100 105 110
 Ile Ser Ala Arg Gly Ala Leu Ala Cys Tyr Ser Ser Glu Arg Thr His
 115 120 125
 Arg Thr Tyr Arg Ala Arg Gly Thr His Arg Ile Leu Glu Thr Tyr Arg
 130 135 140
 Ala Arg Gly Thr His Arg Ala Leu Ala Thr Tyr Arg Ala Arg Gly Ala
 145 150 155 160
 Arg Gly Ser Glu Arg Pro Arg Gly Leu Tyr Leu Glu Ala Leu Ala Pro
 165 170 175
 Arg Ala Leu Ala Ala Arg Gly Pro Arg Ala Arg Gly Thr Tyr Arg Ala
 180 185 190
 Leu Ala Cys Tyr Ser Cys Tyr Ser Pro Arg Gly Leu Tyr Thr Arg Pro
 195 200 205
 Leu Tyr Ser Ala Arg Gly Thr His Arg Ser Glu Arg Gly Leu Tyr Leu
 210 215 220
 Glu Pro Arg Gly Leu Tyr Ala Leu Ala Cys Tyr Ser Gly Leu Tyr Ala
 225 230 235 240
 Leu Ala Ala Leu Ala Ile Leu Glu Cys Tyr Ser Gly Leu Asn Pro Arg
 245 250 255
 Pro Arg Cys Tyr Ser Ala Arg Gly Ala Ser Asn Gly Leu Tyr Gly Leu
 260 265 270
 Tyr Ser Glu Arg Cys Tyr Ser Val Ala Leu Gly Leu Asn Pro Arg Gly
 275 280 285
 Leu Tyr Ala Arg Gly Cys Tyr Ser Ala Arg Gly Cys Tyr Ser Pro Arg
 290 295 300
 Ala Leu Ala Gly Leu Tyr Thr Arg Pro Ala Arg Gly Gly Leu Tyr Ala
 305 310 315 320
 Ser Pro Thr His Arg Cys Tyr Ser Gly Leu Asn Ser Glu Arg Ala Ser
 325 330 335
 Pro Val Ala Leu Ala Ser Pro Gly Leu Cys Tyr Ser Ser Glu Arg Ala
 340 345 350

Leu Ala Ala Arg Gly Ala Arg Gly Gly Leu Tyr Gly Leu Tyr Cys Tyr
 355 360 365
 Ser Pro Arg Gly Leu Asn Ala Arg Gly Cys Tyr Ser Val Ala Leu Ala
 370 375 380
 Ser Asn Thr His Arg Ala Leu Ala Gly Leu Tyr Ser Glu Arg Thr Tyr
 385 390 395 400
 Arg Thr Arg Pro Cys Tyr Ser Gly Leu Asn Cys Tyr Ser Thr Arg Pro
 405 410 415
 Gly Leu Gly Leu Tyr His Ile Ser Ser Glu Arg Leu Glu Ser Glu Arg
 420 425 430
 Ala Leu Ala Ala Ser Pro Gly Leu Tyr Thr His Arg Leu Glu Cys Tyr
 435 440 445
 Ser Val Ala Leu Pro Arg Leu Tyr Ser Gly Leu Tyr Gly Leu Tyr Pro
 450 455 460
 Arg Pro Arg Ala Arg Gly Val Ala Leu Ala Leu Ala Pro Arg Ala Ser
 465 470 475 480
 Asn Pro Arg Thr His Arg Gly Leu Tyr Val Ala Leu Ala Ser Pro Ser
 485 490 495
 Glu Arg Ala Leu Ala Met Glu Thr Leu Tyr Ser Gly Leu Gly Leu Val
 500 505 510
 Ala Leu Gly Leu Asn Ala Arg Gly Leu Glu Gly Leu Asn Ser Glu Arg
 515 520 525
 Ala Arg Gly Val Ala Leu Ala Ser Pro Leu Glu Leu Glu Gly Leu Gly
 530 535 540
 Leu Leu Tyr Ser Leu Glu Gly Leu Asn Leu Glu Val Ala Leu Leu Glu
 545 550 555 560
 Ala Leu Ala Pro Arg Leu Glu His Ile Ser Ser Glu Arg Leu Glu Ala
 565 570 575
 Leu Ala Ser Glu Arg Gly Leu Asn Ala Leu Ala Leu Glu Gly Leu His
 580 585 590
 Ile Ser Gly Leu Tyr Leu Glu Pro Arg Ala Ser Pro Pro Arg Gly Leu
 595 600 605
 Tyr Ser Glu Arg Leu Glu Leu Glu Val Ala Leu His Ile Ser Ser Glu
 610 615 620
 Arg Pro His Glu Gly Leu Asn Gly Leu Asn Leu Glu Gly Leu Tyr Ala
 625 630 635 640
 Arg Gly Ile Leu Glu Ala Ser Pro Ser Glu Arg Leu Glu Ser Glu Arg
 645 650 655
 Gly Leu Gly Leu Asn Ile Leu Glu Ser Glu Arg Pro His Glu Leu Glu
 660 665 670

Gly Leu Gly Leu Gly Leu Asn Leu Glu Gly Leu Tyr Ser Glu Arg Cys
 675 680 685
 Tyr Ser Ser Glu Arg Cys Tyr Ser Leu Tyr Ser Leu Tyr Ser Ala Ser
 690 695 700
 Pro Ser Glu Arg
 705

<210> 9
 <211> 31
 <212> PRT
 <213> Homo sapiens

<400> 9
 Ala Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly Ser Cys Val Gln Pro
 1 5 10 15
 Gly Arg Cys Arg Cys Pro Ala Gly Trp Arg Gly Asp Thr Cys Gln
 20 25 30

<210> 10
 <211> 42
 <212> PRT
 <213> Homo sapiens

<400> 10
 Ser Asp Val Asp Glu Cys Ser Ala Arg Arg Gly Gly Cys Pro Gln Arg
 1 5 10 15
 Cys Val Asn Thr Ala Gly Ser Tyr Trp Cys Gln Cys Trp Glu Gly His
 20 25 30
 Ser Leu Ser Ala Asp Gly Thr Leu Cys Val
 35 40

<210> 11
 <211> 256
 <212> PRT
 <213> Homo sapiens

<400> 11
 Pro Arg Leu Tyr Ser Gly Leu Tyr Gly Leu Tyr Pro Arg Pro Arg Ala
 1 5 10 15
 Arg Gly Val Ala Leu Ala Leu Ala Pro Arg Ala Ser Asn Pro Arg Thr
 20 25 30

His Arg Gly Leu Tyr Val Ala Leu Ala Ser Pro Ser Glu Arg Ala Leu
 35 40 45
 Ala Met Glu Thr Leu Tyr Ser Gly Leu Gly Leu Val Ala Leu Gly Leu
 50 55 60
 Asn Ala Arg Gly Leu Glu Gly Leu Asn Ser Glu Arg Ala Arg Gly Val
 65 70 75 80
 Ala Leu Ala Ser Pro Leu Glu Leu Glu Gly Leu Gly Leu Tyr Ser
 85 90 95
 Leu Glu Gly Leu Asn Leu Glu Val Ala Leu Leu Glu Ala Leu Ala Pro
 100 105 110
 Arg Leu Glu His Ile Ser Ser Glu Arg Leu Glu Ala Leu Ala Ser Glu
 115 120 125
 Arg Gly Leu Asn Ala Leu Ala Leu Glu Gly Leu His Ile Ser Gly Leu
 130 135 140
 Tyr Leu Glu Pro Arg Ala Ser Pro Pro Arg Gly Leu Tyr Ser Glu Arg
 145 150 155 160
 Leu Glu Leu Glu Val Ala Leu His Ile Ser Ser Glu Arg Pro His Glu
 165 170 175
 Gly Leu Asn Gly Leu Asn Leu Glu Gly Leu Tyr Ala Arg Gly Ile Leu
 180 185 190
 Glu Ala Ser Pro Ser Glu Arg Leu Glu Ser Glu Arg Gly Leu Gly Leu
 195 200 205
 Asn Ile Leu Glu Ser Glu Arg Pro His Glu Leu Glu Gly Leu Gly Leu
 210 215 220
 Gly Leu Asn Leu Glu Gly Leu Tyr Ser Glu Arg Cys Tyr Ser Ser Glu
 225 230 235 240
 Arg Cys Tyr Ser Leu Tyr Ser Leu Tyr Ser Ala Ser Pro Ser Glu Arg
 245 250 255

<210> 12

<211> 331

<212> PRT

<213> Homo sapiens

<400> 12

Thr His Arg Gly Leu His Ile Ser Ala Leu Ala Thr Tyr Arg Ala Arg
 1 5 10 15
 Gly Pro Arg Gly Leu Tyr Ala Arg Gly Ala Arg Gly Val Ala Leu Cys
 20 25 30
 Tyr Ser Ala Leu Ala Val Ala Leu Ala Arg Gly Ala Leu Ala His Ile
 35 40 45

Ser Gly Leu Tyr Ala Ser Pro Pro Arg Val Ala Leu Ser Glu Arg Gly
 50 55 60
 Leu Ser Glu Arg Pro His Glu Val Ala Leu Gly Leu Asn Ala Arg Gly
 65 70 75 80
 Val Ala Leu Thr Tyr Arg Gly Leu Asn Pro Arg Pro His Glu Leu Glu
 85 90 95
 Thr His Arg Thr His Arg Cys Tyr Ser Ala Ser Pro Gly Leu Tyr His
 100 105 110
 Ile Ser Ala Arg Gly Ala Leu Ala Cys Tyr Ser Ser Glu Arg Thr His
 115 120 125
 Arg Thr Tyr Arg Ala Arg Gly Thr His Arg Ile Leu Glu Thr Tyr Arg
 130 135 140
 Ala Arg Gly Thr His Arg Ala Leu Ala Thr Tyr Arg Ala Arg Gly Ala
 145 150 155 160
 Arg Gly Ser Glu Arg Pro Arg Gly Leu Tyr Leu Glu Ala Leu Ala Pro
 165 170 175
 Arg Ala Leu Ala Ala Arg Gly Pro Arg Ala Arg Gly Thr Tyr Arg Ala
 180 185 190
 Leu Ala Cys Tyr Ser Cys Tyr Ser Pro Arg Gly Leu Tyr Thr Arg Pro
 195 200 205
 Leu Tyr Ser Ala Arg Gly Thr His Arg Ser Glu Arg Gly Leu Tyr Leu
 210 215 220
 Glu Pro Arg Gly Leu Tyr Ala Leu Ala Cys Tyr Ser Gly Leu Tyr Ala
 225 230 235 240
 Leu Ala Ala Leu Ala Ile Leu Glu Cys Tyr Ser Gly Leu Asn Pro Arg
 245 250 255
 Pro Arg Cys Tyr Ser Ala Arg Gly Ala Ser Asn Gly Leu Tyr Gly Leu
 260 265 270
 Tyr Ser Glu Arg Cys Tyr Ser Val Ala Leu Gly Leu Asn Pro Arg Gly
 275 280 285
 Leu Tyr Ala Arg Gly Cys Tyr Ser Ala Arg Gly Cys Tyr Ser Pro Arg
 290 295 300
 Ala Leu Ala Gly Leu Tyr Thr Arg Pro Ala Arg Gly Gly Leu Tyr Ala
 305 310 315 320
 Ser Pro Thr His Arg Cys Tyr Ser Gly Leu Asn
 325 330

<210> 13

<211> 158

<212> PRT

<213> Homo sapiens

<400> 13

Thr Glu His Ala Tyr Arg Pro Gly Arg Arg Val Cys Ala Val Arg Ala
 1 5 10 15
 His Gly Asp Pro Val Ser Glu Ser Phe Val Gln Arg Val Tyr Gln Pro
 20 25 30
 Phe Leu Thr Thr Cys Asp Gly His Arg Ala Cys Ser Thr Tyr Arg Thr
 35 40 45
 Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly Leu Ala Pro Ala Arg
 50 55 60
 Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser Gly Leu Pro
 65 70 75 80
 Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly
 85 90 95
 Ser Cys Val Gln Pro Gly Arg Cys Arg Cys Pro Ala Gly Trp Arg Gly
 100 105 110
 Asp Thr Cys Gln Ser Asp Val Asp Glu Cys Ser Ala Arg Arg Gly Gly
 115 120 125
 Cys Pro Gln Arg Cys Val Asn Thr Ala Gly Ser Tyr Trp Cys Gln Cys
 130 135 140
 Trp Glu Gly His Ser Leu Ser Ala Asp Gly Thr Leu Cys Val
 145 150 155

<210> 14

<211> 73

<212> PRT

<213> Homo sapiens

<400> 14

Ala Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly Ser Cys Val Gln Pro
 1 5 10 15
 Gly Arg Cys Arg Cys Pro Ala Gly Trp Arg Gly Asp Thr Cys Gln Ser
 20 25 30
 Asp Val Asp Glu Cys Ser Ala Arg Arg Gly Gly Cys Pro Gln Arg Cys
 35 40 45
 Val Asn Thr Ala Gly Ser Tyr Trp Cys Gln Cys Trp Glu Gly His Ser
 50 55 60
 Leu Ser Ala Asp Gly Thr Leu Cys Val
 65 70

<210> 15

<211> 169

<212> PRT

<213> Homo sapiens

<400> 15

Ala Ile Cys Gln Pro Pro Cys Arg Asn Gly Gly Ser Cys Val Gln Pro
 1 5 10 15
 Gly Arg Cys Arg Cys Pro Ala Gly Trp Arg Gly Asp Thr Cys Gln Ser
 20 25 30
 Asp Val Asp Glu Cys Ser Ala Arg Arg Gly Gly Cys Pro Gln Arg Cys
 35 40 45
 Val Asn Thr Ala Gly Ser Tyr Trp Cys Gln Cys Trp Glu Gly His Ser
 50 55 60
 Leu Ser Ala Asp Gly Thr Leu Cys Val Pro Lys Gly Gly Pro Pro Arg
 65 70 75 80
 Val Ala Pro Asn Pro Thr Gly Val Asp Ser Ala Met Lys Glu Glu Val
 85 90 95
 Gln Arg Leu Gln Ser Arg Val Asp Leu Leu Glu Glu Lys Leu Gln Leu
 100 105 110
 Val Leu Ala Pro Leu His Ser Leu Ala Ser Gln Ala Leu Glu His Gly
 115 120 125
 Leu Pro Asp Pro Gly Ser Leu Leu Val His Ser Phe Gln Gln Leu Gly
 130 135 140
 Arg Ile Asp Ser Leu Ser Glu Gln Ile Ser Phe Leu Glu Glu Gln Leu
 145 150 155 160
 Gly Ser Cys Ser Cys Lys Lys Asp Ser
 165

<210> 16

<211> 181

<212> PRT

<213> Homo sapiens

<400> 16

Thr Glu His Ala Tyr Arg Pro Gly Arg Arg Val Cys Ala Val Arg Ala
 1 5 10 15
 His Gly Asp Pro Val Ser Glu Ser Phe Val Gln Arg Val Tyr Gln Pro
 20 25 30
 Phe Leu Thr Thr Cys Asp Gly His Arg Ala Cys Ser Thr Tyr Arg Thr
 35 40 45
 Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly Leu Ala Pro Ala Arg
 50 55 60

Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser Gly Leu Pro
 65 70 75 80
 Gly Ala Cys Gly Ala Pro Lys Gly Gly Pro Arg Val Ala Pro Asn
 85 90 95
 Pro Thr Gly Val Asp Ser Ala Met Lys Glu Glu Val Gln Arg Leu Gln
 100 105 110
 Ser Arg Val Asp Leu Leu Glu Glu Lys Leu Gln Leu Val Leu Ala Pro
 115 120 125
 Leu His Ser Leu Ala Ser Gln Ala Leu Glu His Gly Leu Pro Asp Pro
 130 135 140
 Gly Ser Leu Leu Val His Ser Phe Gln Gln Leu Gly Arg Ile Asp Ser
 145 150 155 160
 Leu Ser Glu Gln Ile Ser Phe Leu Glu Glu Gln Leu Gly Ser Cys Ser
 165 170 175
 Cys Lys Lys Asp Ser
 180

<210> 17

<211> 293

<212> PRT

<213> Homo sapiens

<400> 17

Met Gly Ser Arg Ala Glu Leu Cys Thr Leu Leu Gly Gly Phe Ser Phe
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 Leu Leu Leu Leu Ile Pro Gly Glu Gly Ala Lys Gly Gly Ser Leu Arg
 20 25 30
 Glu Ser Gln Gly Val Cys Ser Lys Gln Thr Leu Val Val Pro Leu His
 35 40 45
 Tyr Asn Glu Ser Tyr Ser Gln Pro Val Tyr Lys Pro Tyr Leu Thr Leu
 50 55 60
 Cys Ala Gly Arg Arg Ile Cys Ser Thr Tyr Arg Thr Met Tyr Arg Val
 65 70 75 80
 Met Trp Arg Glu Val Arg Arg Glu Val Gln Gln Thr His Ala Val Cys
 85 90 95
 Cys Gln Gly Trp Lys Lys Arg His Pro Gly Ala Leu Thr Cys Glu Ala
 100 105 110
 Ile Cys Ala Lys Pro Cys Leu Asn Gly Gly Val Cys Val Arg Pro Asp
 115 120 125
 Gln Cys Glu Cys Ala Pro Gly Trp Gly Gly Lys His Cys His Val Asp
 130 135 140

Val Asp Glu Cys Arg Thr Ser Ile Thr Leu Cys Ser His His Cys Phe
 145 150 155 160
 Asn Thr Ala Gly Ser Phe Thr Cys Gly Cys Pro His Asp Leu Val Leu
 165 170 175
 Gly Val Asp Gly Arg Thr Cys Met Glu Gly Ser Pro Glu Pro Pro Thr
 180 185 190
 Ser Ala Ser Ile Leu Ser Val Ala Val Arg Glu Ala Glu Lys Asp Glu
 195 200 205
 Arg Ala Leu Lys Gln Glu Ile His Glu Leu Arg Gly Arg Leu Glu Arg
 210 215 220
 Leu Glu Gln Trp Ala Gly Gln Ala Gly Ala Trp Val Arg Ala Val Leu
 225 230 235 240
 Pro Val Pro Pro Glu Glu Leu Gln Pro Glu Gln Val Ala Glu Leu Trp
 245 250 255
 Gly Arg Gly Asp Arg Ile Glu Ser Leu Ser Asp Gln Val Leu Leu Leu
 260 265 270
 Glu Glu Arg Leu Gly Ala Cys Ser Cys Glu Asp Asn Ser Leu Gly Leu
 275 280 285
 Gly Val Asn His Arg
 290

<210> 18

<211> 1339

<212> DNA

<213> Mus musculus

<220>

<221> CDS

<222> (261)...(1094)

<400> 18

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 ctgtccctgt gggaagcccc cggcagcagc aagacgtgg ctgttcacc tgcccacaag 180
 aacagccacc accagtacc aggggatgac aagcgcccg accacagccc acaaaaagaa 240
 gaaggctacc ccacttacag atg cag acc atg tgg ggc tcc gga gaa ctg ctt 293

Met Gln Thr Met Trp Gly Ser Gly Glu Leu Leu

1

5

10

gta gca tgg ttt cta gtg ttg gca gca gat ggt act act gag cat gtc 341
 Val Ala Trp Phe Leu Val Leu Ala Ala Asp Gly Thr Thr Glu His Val
 15 20 25

tac aga ccc agc cgt aga gtg tgt act gtg ggg att tcc gga ggt tcc 389
 Tyr Arg Pro Ser Arg Arg Val Cys Thr Val Gly Ile Ser Gly Gly Ser
 30 35 40

atc tcg gag acc ttt gtg cag cgt gta tac cag cct tac ctc acc act 437
 Ile Ser Glu Thr Phe Val Gln Arg Val Tyr Gln Pro Tyr Leu Thr Thr
 45 50 55

tgc gac gga cac aga gcc tgc agc acc tac cga acc atc tac cgg act 485
 Cys Asp Gly His Arg Ala Cys Ser Thr Tyr Arg Thr Ile Tyr Arg Thr
 60 65 70 75

gcc tat cgc cgt agc cct ggg gtg act ccc gca agg cct cgc tat gct 533
 Ala Tyr Arg Arg Ser Pro Gly Val Thr Pro Ala Arg Pro Arg Tyr Ala
 80 85 90

tgc tgc cct ggt tgg aag agg acc agt ggg ctc cct ggg gct tgt gga 581
 Cys Cys Pro Gly Trp Lys Arg Thr Ser Gly Leu Pro Gly Ala Cys Gly
 95 100 105

gca gca ata tgc cag cct cca tgt ggg aat gga ggg agt tgc atc cgc 629
 Ala Ala Ile Cys Gln Pro Pro Cys Gly Asn Gly Gly Ser Cys Ile Arg
 110 115 120

cca gga cac tgc cgc tgc cct gtg gga tgg cag gga gat act tgc cag 677
 Pro Gly His Cys Arg Cys Pro Val Gly Trp Gln Gly Asp Thr Cys Gln
 125 130 135

aca gat gtt gat gaa tgc agt aca gga gag gcc agt tgt ccc cag cgc 725
 Thr Asp Val Asp Glu Cys Ser Thr Gly Glu Ala Ser Cys Pro Gln Arg
 140 145 150 155

tgt gtc aat act gtg gga agt tac tgg tgc cag gga tgg gag gga caa 773
 Cys Val Asn Thr Val Gly Ser Tyr Trp Cys Gln Gly Trp Glu Gly Gln
 160 165 170

agc cca tct gca gat ggg acg cgc tgc ctg tct aag gag ggg ccc tcc 821
 Ser Pro Ser Ala Asp Gly Thr Arg Cys Leu Ser Lys Glu Gly Pro Ser
 175 180 185

ccg gtg gcc cca aac ccc aca gca gga gtg gac agc atg gcg aga gag 869
 Pro Val Ala Pro Asn Pro Thr Ala Gly Val Asp Ser Met Ala Arg Glu
 190 195 200

gag gtg tac agg ctg cag gct cgg gtt gat gtg cta gaa cag aaa ctg 917
 Glu Val Tyr Arg Leu Gln Ala Arg Val Asp Val Leu Glu Gln Lys Leu
 205 210 215

cag ttg gtg ctg gcc cca ctg cac agc ctg gcc tct cgg tcc aca gag 965
 Gln Leu Val Leu Ala Pro Leu His Ser Leu Ala Ser Arg Ser Thr Glu
 220 225 230 235

cat ggg cta caa gat cct ggc agc ctg ctg gcc cat tcc ttc cag cag 1013
 His Gly Leu Gln Asp Pro Gly Ser Leu Leu Ala His Ser Phe Gln
 240 245 250

ctg gac cga att gat tca ctg agt gag cag gtg tcc ttc ttg gag gaa 1061
 Leu Asp Arg Ile Asp Ser Leu Ser Glu Gln Val Ser Phe Leu Glu Glu
 255 260 265

cat ctg ggg tcc tgc tcc tgc aaa aaa gat ctg tgataacctc tcaccacca 1114
 His Leu Gly Ser Cys Ser Cys Lys Lys Asp Leu
 270 275

ggctggatag agcagtcac cctagatccc ttgtagccag agttcaggcg ctgtctggtg 1174
 gtgcctatga gcagaaggcc ctgcctcatt gtccctcttt cttaggaggt tcctaggact 1234
 tgggcatggg gagtggggc ttgtgtgact cttcagtggt gctccctgtc taagtggtaa 1294
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<210> 19
 <211> 278
 <212> PRT
 <213> Mus musculus

<400> 19
 Met Gln Thr Met Trp Gly Ser Gly Glu Leu Leu Val Ala Trp Phe Leu
 1 5 10 15

Val Leu Ala Ala Asp Gly Thr Thr Glu His Val Tyr Arg Pro Ser Arg
 20 25 30
 Arg Val Cys Thr Val Gly Ile Ser Gly Gly Ser Ile Ser Glu Thr Phe
 35 40 45
 Val Gln Arg Val Tyr Gln Pro Tyr Leu Thr Thr Cys Asp Gly His Arg
 50 55 60
 Ala Cys Ser Thr Tyr Arg Thr Ile Tyr Arg Thr Ala Tyr Arg Arg Ser
 65 70 75 80
 Pro Gly Val Thr Pro Ala Arg Pro Arg Tyr Ala Cys Cys Pro Gly Trp
 85 90 95
 Lys Arg Thr Ser Gly Leu Pro Gly Ala Cys Gly Ala Ala Ile Cys Gln
 100 105 110
 Pro Pro Cys Gly Asn Gly Gly Ser Cys Ile Arg Pro Gly His Cys Arg
 115 120 125
 Cys Pro Val Gly Trp Gln Gly Asp Thr Cys Gln Thr Asp Val Asp Glu
 130 135 140
 Cys Ser Thr Gly Glu Ala Ser Cys Pro Gln Arg Cys Val Asn Thr Val
 145 150 155 160
 Gly Ser Tyr Trp Cys Gln Gly Trp Glu Gly Gln Ser Pro Ser Ala Asp
 165 170 175
 Gly Thr Arg Cys Leu Ser Lys Glu Gly Pro Ser Pro Val Ala Pro Asn
 180 185 190
 Pro Thr Ala Gly Val Asp Ser Met Ala Arg Glu Glu Val Tyr Arg Leu
 195 200 205
 Gln Ala Arg Val Asp Val Leu Glu Gln Lys Leu Gln Leu Val Leu Ala
 210 215 220
 Pro Leu His Ser Leu Ala Ser Arg Ser Thr Glu His Gly Leu Gln Asp
 225 230 235 240
 Pro Gly Ser Leu Leu Ala His Ser Phe Gln Leu Asp Arg Ile Asp
 245 250 255
 Ser Leu Ser Glu Gln Val Ser Phe Leu Glu Glu His Leu Gly Ser Cys
 260 265 270
 Ser Cys Lys Lys Asp Leu
 275

<210> 20

<211> 29

<212> PRT

<213> Mus musculus

<400> 20

Thr	Cys	Asp	Gly	His	Arg	Ala	Cys	Ser	Thr	Tyr	Arg	Thr	Ile	Tyr	Arg
1				5					10					15	
Thr	Ala	Tyr	Arg	Arg	Ser	Pro	Gly	Leu	Ala	Pro	Ala	Arg			
			20					25							

<210> 21

<211> 32

<212> PRT

<213> Mus musculus

<400> 21

Gln	Pro	Gly	Arg	Cys	Arg	Cys	Pro	Ala	Gly	Trp	Arg	Gly	Asp	Thr	Cys
1				5					10					15	
Gln	Ser	Asp	Val	Asp	Glu	Cys	Ser	Ala	Arg	Arg	Gly	Gly	Cys	Pro	Gln
			20					25					30		

<210> 22

<211> 37

<212> PRT

<213> Mus musculus

<400> 22

Cys	Val	Pro	Lys	Gly	Gly	Pro	Pro	Arg	Val	Ala	Pro	Asn	Pro	Thr	Gly
1				5					10					15	
Val	Asp	Ser	Ala	Met	Lys	Glu	Glu	Val	Gln	Arg	Leu	Gln	Ser	Arg	Val
			20					25					30		
Asp	Leu	Leu	Glu	Glu											
			35												

<210> 23

<211> 29

<212> PRT

<213> Mus musculus

<400> 23

Gln	Gln	Leu	Gly	Arg	Ile	Asp	Ser	Leu	Ser	Glu	Gln	Ile	Ser	Phe	Leu
1				5					10					15	
Glu	Glu	Gln	Leu	Gly	Ser	Cys	Ser	Cys	Lys	Lys	Asp	Ser			
			20					25							

<210> 24

<211> 255

<212> PRT

<213> Homo sapiens

<400> 24

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Thr Glu His Val Tyr Arg Pro Ser Arg Arg Val Cys Thr Val Gly Ile
  1                5                10                15
Ser Gly Gly Ser Ile Ser Glu Thr Phe Val Gln Arg Val Tyr Gln Pro
  20                25                30
Tyr Leu Thr Thr Cys Asp Gly His Arg Ala Cys Ser Thr Tyr Arg Thr
  35                40                45
Ile Tyr Arg Thr Ala Tyr Arg Arg Ser Pro Gly Val Thr Pro Ala Arg
  50                55                60
Pro Arg Tyr Ala Cys Cys Pro Gly Trp Lys Arg Thr Ser Gly Leu Pro
  65                70                75                80
Gly Ala Cys Gly Ala Ala Ile Cys Gln Pro Pro Cys Gly Asn Gly Gly
  85                90                95
Ser Cys Ile Arg Pro Gly His Cys Arg Cys Pro Val Gly Trp Gln Gly
  100               105               110
Asp Thr Cys Gln Thr Asp Val Asp Glu Cys Ser Thr Gly Glu Ala Ser
  115               120               125
Cys Pro Gln Arg Cys Val Asn Thr Val Gly Ser Tyr Trp Cys Gln Gly
  130               135               140
Trp Glu Gly Gln Ser Pro Ser Ala Asp Gly Thr Arg Cys Leu Ser Lys
  145               150               155               160
Glu Gly Pro Ser Pro Val Ala Pro Asn Pro Thr Ala Gly Val Asp Ser
  165               170               175
Met Ala Arg Glu Glu Val Tyr Arg Leu Gln Ala Arg Val Asp Val Leu
  180               185               190
Glu Gln Lys Leu Gln Leu Val Leu Ala Pro Leu His Ser Leu Ala Ser
  195               200               205
Arg Ser Thr Glu His Gly Leu Gln Asp Pro Gly Ser Leu Leu Ala His
  210               215               220
Ser Phe Gln Gln Leu Asp Arg Ile Asp Ser Leu Ser Glu Gln Val Ser
  225               230               235               240
Phe Leu Glu Glu His Leu Gly Ser Cys Ser Cys Lys Lys Asp Leu
  245               250               255

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